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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|------------------------------|------------------|
| 10/025,437 | 12/18/2001 | Mehdi Frederik Soltan | M-12367 US | 6542 |
| 7590 | 12/19/2003 | | | |
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| | | | EXAMINER JONES, STEPHEN E | |
| | | | ART UNIT 2817 | PAPER NUMBER |

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,437

Applicant(s)

SOLTAN ET AL.

Examiner

Stephen E. Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-13, 15-26 and 32-45 is/are pending in the application.
- 4a) Of the above claim(s) 1-5, 15-26 and 33-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-13 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-5, 8-13, 15-26 and 32-45 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10/18/02. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species II (Figs. 3-5) in Paper No. 9/16/03 is acknowledged. Applicant indicated that Claims 8-13, 15-18, and 32-36 are directed to the elected species. However, upon examination it appears that Claims 15-18 and 33-36 read on a non-elected embodiment since Figs. 3-5 do not teach a first bondwire electrically connecting the output port to a first external conductor in combination with a second bond wire electrically connecting the first external conductor to a node on the die.

2. Accordingly Claims 1-5, 15-26, and 33-45 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9/16/03.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 8-10, 12, and 32 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Singh et al.

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Singh (Figs. 4-6) teaches an amplifier integrated circuit including: a chip/die (42) having an output port on the chip connected to a bondwire (e.g. 62) that is connected to an external conductor (e.g. 3); various capacitors are also included with the wires to form an on-chip output impedance matching circuit (i.e. matching to the load by means of the impedance characteristics of the elements) (see Col. 2, lines 5-7); capacitor (CB2 and C6 in Fig. 5) is connected between the output port and ground (Claims 8 and 32); the device operates at microwave frequencies (see Col. 2, lines 43-45) which are in the RF frequency spectrum and is for power amplifiers (e.g. see the abstract) (Claim 9); it is also inherent that the bondwire, the capacitor and load impedance are jointly operable to resonate at the operating frequency in the same manner as the present invention, because otherwise the signal would not pass properly to the output (Claim 10); and Singh teaches MESFET's with GaAs (e.g. see Col. 4, lines 10-13) (claim 12).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. in view of Raab.

Singh teaches an amplifier device as described above. However, Singh does not explicitly teach that the MESFET device can be alternatively made as a MOS device (Claim 11) or bipolar device (Claim 13).

Raab (Col. 13, lines 36-40) teaches that amplifiers can be alternatively implemented from MESFET's, MOSFET's, or bipolar transistors.

Thus, it would have been considered obvious to one of ordinary skill in the art to have substituted a MOSFET or bipolar transistor (such as suggested by Raab) in place of the MESFET in the Singh circuit device, because it would have been considered a mere substitution of art-recognized alternative/equivalent semiconductor means for an amplifier circuit.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Van Roosmalen teaches an integrated semiconductor device having capacitors on-chip.

Murray et al. teaches on-chip capacitors with an amplifier.

Luo teaches a power amplifier having output matching.

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Wilson teaches a transistor package having a matching capacitance and bond wires.

Schwab teaches an integrated circuit having a parasitic filter.

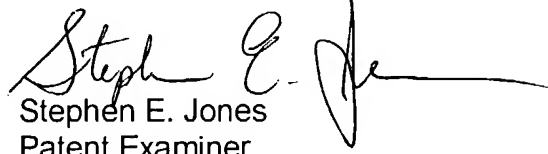
Vathulya teaches an output on-chip impedance matching circuit.

Moghe et al. teaches an impedance matching network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 703-305-0390. The examiner can normally be reached on Monday through Friday from 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 703-308-4909. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Stephen E. Jones
Patent Examiner
Art Unit 2817

SEJ